

U.S.S.N. 08/398,555

Filed: March 3, 1995

AMENDMENT AND RESPONSE TO OFFICE ACTION

Amendments to the Claims:

Claims 1-13 (canceled)

Claim 14 (previously presented): The method of claim 33 wherein the attachment agent is selected from the group consisting of cyanogen bromide, succinimide, aldehyde, tosyl chloride, avidin-biotin, epoxide, maeleimide, and carbodiimide.

Claim 15 (original): The method of claim 14 wherein the composition is administered by injection, infusion, or implantation.

Claim 16 (original): The method of claim 15 wherein the composition is administered by implantation of the composition and wherein the substrate is shaped to match a desired tissue shape.

Claim 17 (original): The method of claim 16 wherein the substrate is biodegradable.

Claims 18-31 (canceled)

Claim 32 (previously presented): The method of claim 34 wherein the attachment agent is selected from the group consisting of cyanogen bromide, succinimide, aldehyde, tosyl chloride, avidin-biotin, epoxide, maeleimide, and carbodiimide.

Claim 33 (currently amended): A method for growing eukaryotic cells comprising bringing into contact the cells with a composition comprising

a biocompatible solid substrate,

biocompatible polymeric tethers, and

growth effector molecules,

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wherein one end of each tether is covalently linked to the substrate and one end is covalently linked to ~~an~~ a growth factor molecule so that the growth effector molecule cannot be internalized by cells attached to the substrate;

wherein the growth effector molecules are attached to the substrate in a concentration effective to enhance the rate of target cell growth over the rate of target cell growth with soluble growth effector molecules and growth effector molecules adsorbed to a substrate, without internalization of the molecules; and

wherein the tether is covalently linked to the substrate and to the growth effector molecule by the same attachment agents, maintaining the cells in contact with the composition under conditions and for a time sufficient to cause the cells to grow.

Claim 34 (currently amended): A method of testing a compound for an effect on tissue comprising bringing into contact the compound to be tested and a composition comprising
a biocompatible solid substrate,
biocompatible, polymeric tethers,
growth effector molecules, and
growing cells,

wherein one end of each tether is covalently linked to the substrate and one end is covalently linked to ~~an~~ a growth effector molecule so that the growth effector molecule cannot be internalized by cells attached to the substrate;

wherein the growth effector molecules are attached to the substrate in a concentration effective to enhance the rate of target cell growth over the rate of target cell growth with soluble

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growth effector molecules and growth effector molecules adsorbed to a substrate, without internalization of the molecules;

wherein the tether is covalently linked to the substrate and to the growth effector molecule by the same attachment agents; and

wherein the growing cells are bound to the growth effector molecules; incubating the compound and the composition under conditions promoting cell growth; and observing the cells for any effect not observed in cells not brought into contact with the composition.